

**FUTURE FISHERIES IMPROVEMENT PROGRAM GRANT APPLICATION***All sections must be addressed, or the application will be considered invalid***I. APPLICANT INFORMATION**A. Applicant Name: Pat Barnes Chapter Trout UnlimitedMailing Address: 922 Hauser BlvdCity: Helena State: MT Zip: 59601Telephone: 406-200-0259 E-mail: patbarnestroutunlimited@gmail.comB. Contact Person (if different than applicant): Allison Russell, Fisheries Biologist HLCAddress: 2880 Skyway DriveCity: Helena State: MT Zip: 59602Telephone: 406-495-3923 E-mail: allison.russell@usda.govC. Landowner and/or Lessee Name (if different than applicant): Helena Ranger District, Helena-Lewis and Clark NF, USFSMailing Address: 2880 Skyway DriveCity: Helena State: MT Zip: 59602Telephone: 406-495-3923 E-mail: _____**II. PROJECT INFORMATION**A. Project Name: Beaver Creek Restoration ProjectRiver, stream, or lake: Beaver CreekLocation: Township: 12N Range: 2W Section: 16,17, 20Latitude: -111.877 Longitude: 46.797 *within project (decimal degrees)*County: Lewis and Clark County

B. Purpose of Project: _____

Beaver Creek Missouri Channel Reconstruction

The Beaver Creek watershed is located in the upper Missouri River approximately 14 miles northeast of Helena, MT. It is a large watershed, originating on National Forest lands and flows 18 miles to the confluence of the Missouri River just below Hauser Dam. Beaver Creek is an important tributary to the Missouri River and historically supported healthy runs of fluvial rainbow and brown trout, both focal species of this restoration project.

The USFS Helena Ranger District and Pat Barnes Chapter Trout Unlimited in partnership with NorthWest Energy, and Montana Fish Wildlife and Parks propose to restore a section of lower Beaver Creek (1.2 miles), which lacks floodplain connectivity, habitat complexity and a functioning riparian area due to decades of historic land use practices. This project would be a multi-phased restoration approach with Phase I restoring 0.3 miles of the channel. Phase II of the project would restore the remaining 0.9 miles of lower Beaver Creek. Restoration goals were developed to restore hydrologic processes, reconstruct the stream channel and floodplain to more natural conditions that emulate historic stream sinuosity and morphology, improve water quality, and increase habitat complexity to provide spawning and rearing habitat, restore riparian areas and create additional wetland habitat.

C. Brief Project Description (attach additional information to end of application):

Beaver Creek Missouri Channel Reconstruction

The design of the new channel and floodplain was developed to provide a landscape capable of sustaining geomorphic processes to support desired aquatic habitat and riparian conditions. The primary limiting factor driving geomorphic, vegetation, and aquatic habitat impairments in the project area is lack of floodplain connection due to the channel entrenchment. The proposed design channel would reduce channel entrenchment, establish pool development processes, address stream flows and ponding, and modify channel hydraulics to produce flows that would support a mobile gravel bed i.e. spawning areas. The shape of the new channel and adjacent floodplain work was determined through hydrologic analysis, terrain model development, earthwork analysis and hydraulic modeling. To achieve the desired condition of floodplain connectivity and habitat complexity, a combination of restoration strategies would be applied:

- Raise the elevation of Beaver Creek to reconnect to former floodplain surfaces. This would require the removal of 26,560 CY of material, 18,720 would fill the existing channel.
- Reconnect abandoned oxbow channels to increase stream length and reduce channel slope
- Construct a new channel, riffle-pool C4 stream type, within a terraced valley and broadly connected floodplain.
- Convert the existing channel to off-channel wetlands (2.0 acres) and/or side channel habitat (0.5 acres)
- Install streambank structures to allow bank vegetation to become established while also improving habitat complexity. Approximately 73 large wood structures would be constructed and 9,641 linear feet of vegetated/wood matrix streambank treatment.
- Riparian and upland planting (Sheets 9.0-9.2).
- Reconstruct floodplain surface with 13 acres of microtopography grading and placement of large wood material
- Dispersed campsite reclamation/improvements at three campsites, refer to sheet 8.6.

The final design plan set includes plan view and structure layout, grading plan and profiles, a vegetation salvage plan and revegetation specs, material list, design channel cross sections by station. Plans also include details for the large wood structures, vegetated woody matrix for streambank construction, the constructed streambed, beaver dam analogs and log step pools.

The project would use FSR #138 and a currently closed road to access the south side of the project area (Sheet 3.0). This temporary haul road on an existing road prism would be decommissioned once the project was complete. Three dispersed campsite would be temporarily impacted due to construction disturbance, staging of material and haul; however, improvement and rehabilitation of these sites are proposed (Sheet 8.6). This project would be implemented in two phases with construction beginning the summer of 2020.

D. Length of stream or size of lake that will be treated: 1.2 miles total, Phase I= 0.3 miles, Phase II= 0.9 miles

E. Project Budget:

Grant Request (Dollars):	\$	100,000
Matching Dollars:	\$	104,229.80 secured
Matching In-Kind Services:*	\$	26,167.60
*salaries of government employees <u>are not</u> considered matching contributions		
Total Project Cost:	\$	Phase I \$411,690.80

F. **Attach** itemized (line item) budget – see *budget template*

Beaver Creek Missouri Channel Reconstruction

- Attach** specific project plans, detailed sketches, plan views, photographs, maps, evidence of landowner consent, evidence of public support and fish biologist support, and/or other information necessary to evaluate the merits of the project. If project involves water leasing or water salvage complete a *supplemental questionnaire*. (<http://fwp.mt.gov/fwpDoc.html?id=36110>)
- H. **Attach** land management & maintenance plans that will ensure protection of the reclaimed area.

III. PROJECT BENEFITS (attach additional information to end of application):

- A. What species of fish will benefit from this project?

Historically, Beaver Creek served as a primary spawning tributary for the large adfluvial rainbow and brown trout that migrate up from Holter Reservoir and are the focal species for this restoration project.

USFS has been conducting annual spawning ground surveys for rainbow trout since 1983, please refer to attachment with redd count data. Redd counts in this index reach (mouth of Beaver Creek to Nelson), capture patterns of spatial and temporal distribution of adfluvial rainbow trout in lower Beaver Creek and provide an indicator of the magnitude of wild fish recruitment to sections of the Missouri and Holter Reservoir. Spawning returns in years 2014-2018 repeat a pattern observed since early 2000 when the number and extent of adfluvial redds experienced severe declines. Factors likely contributing to the observed declines in rainbow trout returns are prolonged drought, increased fishing pressure, habitat degradation, and whirling disease (2009 noted a dramatic increase in whirling disease, MT FWP) and predation.

There is not the longevity in brown trout spawning ground data but, brown trout will also greatly benefit from this project. Past surveys have noted intermittent flow conditions in the lower one-quarter mile of Beaver Creek in the fall and before spring freshet. Flow intermittency within an encised channel can greatly restrict fall spawner migration such as brown trout. The project area was identified as a priority for restoration because it is one of the more degraded sections of Beaver Creek due to past agricultural practices but also provides the most potential for future spawning and rearing habitat by reconnecting the large valley floodplain and returning it to a dynamic system that promotes multi-channel and wetland development.

- B. How will the project protect or enhance wild fish habitat?

Beaver Creek Missouri Channel Reconstruction

The presence of well-defined erosional terraces within the project area, indicate that Beaver Creek once occupied higher surfaces that were abandoned when the channel was straightened and subsequently down-cut. These former surfaces above the existing channel base elevation, would be reconnected by constructing a new, lower gradient stream type representing the historical morphology of Beaver Creek.

The construction of a design channel with increased sinuosity and stream length, reduction in stream slope, and pool-riffle sequences within a C4 stream type with the addition of complex large wood structures would provide quality habitat for fish and allow for more hydrologic function to maintain these features in the future. Improved hydrologic function and streambank treatments composed of wood, alluvium native rock and vegetation, would increase bank resistance and provide for streambed and bank stability improving water quality and reducing substrate embeddedness.

The existing channel would be converted to off-channel emergent wetlands and/or side channel habitat (2.5 acres); connector channels would feed these off-channel habitats during high flows and activate alcove areas. Fish, especially juvenile salmonids, enter these shallow, well vegetated, low-velocity areas during high flows, where they can seek refuge from fast, turbid waters. Activated side channels and other complex features associated with the main channel not only moderate high flows but can also offer alternate food sources.

C. Will the project improve fish populations and/or fishing? To what extent?

Beaver Creek and the Missouri River (Hauser tailrace) provide the majority of spawning habitat for the large adfluvial rainbow and brown trout that migrate from Holter reservoir. The rainbow trout fishery in the Holter Lake system is hatchery supplemented with a high of around 461,351 fish stocked in 2001 and due to recent budget constraints, a low of 128,588 fish that were stocked in 2018. Stocking regiments have averaged 246,117 fish per year (2003-2018). Since 2011, MTFWP has observed a marked decline in wild fish production when examining Hauser trailrace estimates for rainbow trout (percent hatchery origin/detection). For example, the 2017 survey detected 79% hatchery origin compared to the 2003 estimate of only 18.0% hatchery detection rate. This decline in wild fish production is likely fueled by ongoing habitat degradation (lack of spawning and rearing habitat), a decreased rate in spawning returns, angling pressure, and an increased rate in predation.

Restoring Beaver Creek's natural stream morphology and hydrologic processes will "reset" the system to provide a dynamic and complex aquatic environment that meets the habitat requirements for all life stages and production of wild trout and other native aquatic species.

D. Will the project increase public fishing opportunity for wild fish and, if so, how?

Beaver Creek Missouri Channel Reconstruction

As mentioned above, restoration efforts would focus on restoring hydrologic processes and improving aquatic habitat complexity. Treatments would include constructing a channel that reconnects relict channel oxbows to increase stream length and constructing a riffle-pool C4 stream type to increase spawning habitat and wild trout production. Streambank treatments, placement of large wood structures, increased pool frequency and development of off-channel wetland/side channel habitat would improve rearing habitat for both the focal species. Recent creel surveys for the Hauser tailrace (dam to the confluence of Beaver Creek) reported an average of 5,521 fishing hours for rainbow trout and 126 fishing hours for brown trout (2016-2018). This project may be even more valuable if MT FWP were to expect a continued decline in stocking rates for rainbow trout with increased angling pressure.

- E. The project agreement includes a 20-year maintenance commitment. Please discuss your ability to meet this commitment.

The Helena – Lewis and Clark National Forest manages the lands where the proposed project would occur and will be responsible for inspection of the stream and habitat improvement work over time. This project is also designed to move aquatic and riparian resources towards the Desired Conditions identified in the Draft Revised Helena-Lewis and Clark National Forest Plan. The aquatics and hydrology staff will ensure the improvements are providing for appropriate stream form and function for as long as the Forest has management jurisdiction. If maintenance issues develop, we will work with our partners to address those concerns. If the project is approved, we will provide the Future Fisheries Program adequate documentation to address the maintenance commitment.

- F. What was the cause of habitat degradation in the area of this project and how will the project correct the cause?

Beaver Creek Missouri Channel Reconstruction

Beaver Creek is a highly impaired system from past agricultural, grazing practices, and rip-rap stabilization that resulted in stream channelization, removal of riparian vegetation and likely the displacement of beaver, refer to attached pictures. These impacts have led to degradation of channel form, bank stability and eventual channel incision and reduced floodplain connectivity. Due to channel incision and lack of floodplain connectivity, there is a lack of aquatic habitat diversity. Stream reaches in the project area are primarily dominated by long homogenous riffles with highly embedded substrate and infrequent pools with limited depth. Floodplain surfaces within the project area are limited to narrow riparian areas directly adjacent to the channel. In 1974, the USFS purchased the 3,355 acre parcel from private ownership in lower Beaver Creek and it has not been grazed/farmed since, and the project area is not in a designated allotment. Currently, recreational impacts are limited to three dispersed campsites in the project area, however, FS road 138 and the trailhead at the confluence of Beaver Creek and the Missouri are well utilized by hikers and anglers alike. Beaver Creek is currently listed for sediment impairments and alteration of stream-side vegetative cover; there is not an approved TMDL associated with this waterbody.

This project seeks to restore a total of 1.2 miles of lower Beaver Creek, to improve water quality, restore hydrologic processes, reconstruct the stream channel and floodplain to more natural conditions, and increase aquatic habitat complexity to provide spawning and rearing habitat for rainbow and brown trout. Beaver are active throughout the watershed and would have historically been one of the greatest influences on aquatic habitat and riparian communities within the project area. Proposed restoration activities will likely be influenced by ongoing beaver activity and treatments such as the construction of beaver dam analogs on off-channel wetland features. Restoring vegetation communities will likely further the influence and presence of beaver within the project area. The design channel would increase length and sinuosity for additional spawning and rearing habitat, 2.5 acres of additional wetland and alcove habitat, and 13 acres of additional floodplain area with the proposed restoration treatments. This project would also address non-managed recreational use that has resulted in removal of riparian vegetation, bank erosion, and direct manipulation of the channel through constructed footbridges.

G. What public benefits will be realized from this project?

Beaver Creek is a primary spawning tributary to the Missouri River within the Holter Lake system and supports a very popular recreational fishery for both rainbow and brown trout. Holter Lake ranked 6th in the state for fishing pressure observed approximately 96,103 angler days from March 2017-February 2018. The Missouri River just above and below Beaver Creek observed over 18,800 angler days during this time frame (MT FWP). Holter Lake, the Missouri River below Hauser and Holter dams, and Canyon Ferry generate approximately \$52 million dollars in state revenue (Strainer, MT FWP), benefitting local economies within the area. The Beaver Creek Restoration project will not only improve a popular recreational trout fishery but restoration efforts will restore floodplain and hydrologic processes, returning the stream to more natural conditions, benefitting riparian habitat, wildlife and native and non-native fish species alike.

H. Will the project interfere with water or property rights of adjacent landowners? (explain):

No, proposed work is on FS lands, please refer to attached map.

Beaver Creek Missouri Channel Reconstruction

- I. Will the project result in the development of commercial recreational use on the site? (explain):

N/A

- J. Is this project associated with the reclamation of past mining activity?

N/A

Each approved project applicant must enter into a written agreement with Montana Fish, Wildlife & Parks specifying terms and duration of the project. The applicant must obtain all applicable permits prior to project construction. A competitive bid process must be followed when using State funds.

IV. AUTHORIZING STATEMENT

I (we) hereby declare that the information and all statements to this application are true, complete, and accurate to the best of my (our) knowledge and that the project or activity complies with rules of the Future Fisheries Improvement Program.

Applicant Signature:

Date:

Will W. T. Smith

5/30/2019

Sponsor (if applicable):

Kathy Quisenberry Helena District Ranger 5/30/19

Submittal: Applications must be *signed and received* before December 1 and June 1 of each year to be considered for the subsequent funding period. Late or incomplete applications will be rejected.

Mail to: Montana FWP
Fish Management Bureau
PO Box 200701
Helena, MT 59620-0701

Email: Michelle McGree
mmcgree@mt.gov
(electronic submissions must be signed)
For files over 10MB, use <https://transfer.mt.gov>

Applications may be rejected if this form is modified.

BUDGET TEMPLATE SHEET FOR FUTURE FISHERIES PROGRAM APPLICATIONS

Beaver Creek Missouri Channel Reconstruction
Both tables must be completed or the application will be returned

WORK ITEMS (ITEMIZE BY CATEGORY)	NUMBER OF UNITS	UNIT DESCRIPTION*	COST/UNIT	TOTAL COST	CONTRIBUTIONS			
					FUTURE FISHERIES REQUEST	IN-KIND SERVICES**	IN-KIND CASH	TOTAL
Personnel***								
Survey								\$ -
Design	1	Contract RDG, Lump Sum, incl		\$ 79,000.00			79,000.00	\$ 79,000.00
Engineering		Included in RDG contract for de		\$ -				\$ -
Permitting		FS Personnel		\$ -				\$ -
Oversight	1	Lump sum, includes preconstruction		\$ 34,673.70			34,673.70	\$ 34,673.70
				\$ -				\$ -
			Sub-Total	\$ 113,673.70	\$ -	\$ -	\$ 113,673.70	\$ 113,673.70
Travel								
Mileage, \$0.29/mi 60 miles RT for TU Staff				\$ 417.60		417.60		\$ 417.60
Per diem includes mileage for RDG project staff	1	lump sum		\$ 5,617.60			5,617.60	\$ 5,617.60
			Sub-Total	\$ 6,035.20	\$ -	\$ 417.60		\$ 6,035.20
Construction Materials****								
Furnish Wood	1	LS		\$ 25,000.00		25,000.00		\$ 25,000.00
Furnish Streambed fill	2223	CY	\$20.00	\$ 44,460.00			44,460.00	\$ 44,460.00
				\$ -				\$ -
				\$ -				\$ -
				\$ -				\$ -
				\$ -				\$ -
				\$ -				\$ -
				\$ -				\$ -
				\$ -				\$ -
			Sub-Total	\$ 69,460.00	\$ -	\$ 25,000.00	\$ 44,460.00	\$ 69,460.00
Equipment and Labor								
Clear and Grub	1	LS	\$2,000.00	\$ 2,000.00			2,000.00	\$ 2,000.00
Construct and decommission water diversion	2	LS	\$1,500.00	\$ 3,000.00			3,000.00	\$ 3,000.00
Salvage, preserve, and transplant existing vegetation	1	LS	\$10,000.00	\$ 10,000.00			10,000.00	\$ 10,000.00

Beaver Creek Missouri Channel Reconstruction
BUDGET TEMPLATE SHEET FOR FUTURE FISHERIES PROGRAM APPLICATIONS

Construct and improve roads and staging areas	1	LS	\$5,000.00	\$ 5,000.00			5,000.00	\$ 5,000.00
Excavate, haul and place floodplain backfill	18,720	CY	\$3.00	\$ 56,160.00	56,160.00			\$ 56,160.00
Excavate, haul, and place fill in repositories	7,840	CY	\$3.00	\$ 23,520.00			23,520.00	\$ 23,520.00
Construct channel streambed	1,675	LF	\$18.00	\$ 30,150.00	30,150.00			\$ 30,150.00
Construct Large Wood Matrix structures	21	EA	\$1,250.00	\$ 26,250.00	13,690.00		12,560.00	\$ 26,250.00
Construct Vegetated Wood matrix Type 1	148	LF	\$12.00	\$ 1,776.00			1,776.00	\$ 1,776.00
Construct Vegetated Wood matrix Type 2	1,223	LF	\$18.00	\$ 22,014.00			22,014.00	\$ 22,014.00
Construct Vegetated Wood Matrix Type 3	304	LF	\$5.00	\$ 1,520.00			1,520.00	\$ 1,520.00
Install Beaver Dam Analogs. Labor by TU volunteers at \$150.00/day for 5 days	10	EA	\$400.00	\$ 4,750.00		750.00	4,000.00	\$ 4,750.00
Construct side channels	132	LF	\$3.00	\$ 396.00			396.00	\$ 396.00
Install Floodplain Roughness and FP Wetlands	9	AC	\$1,500.00	\$ 13,500.00			13,500.00	\$ 13,500.00
Pre-construction weed treatment	20	AC, includes herbicide	5.34, 17.43, 0	\$ 1,229.80			1,229.80	\$ 1,229.80

Beaver Creek Missouri Channel Reconstruction
BUDGET TEMPLATE SHEET FOR FUTURE FISHERIES PROGRAM APPLICATIONS

			Sub-Total	\$ 201,265.80	\$ 100,000.00	\$ 750.00	\$ 100,515.80	\$ 201,265.80
Mobilization								
mobilization	1	LS		\$ 21,256.10			21,256.10	\$ 21,256.10
				\$ -				\$ -
				\$ -				\$ -
				\$ -				\$ -
			Sub-Total	\$ 21,256.10	\$ -	\$ -	\$ 21,256.10	\$ 21,256.10
TOTALS				\$ 411,690.80	\$ 100,000.00	\$ 26,167.60	\$ 279,905.60	\$ 411,690.80

OTHER REQUIREMENTS:

All of the columns in the budget table and the matching contribution table MUST be completed appropriately or the application will be invalid. Please see the example budget sheet for additional clarification.

*Units = feet, hours, inches, etc. Do not use lump sum unless there is no other way to describe the costs.

**Can include in-kind materials. Justification for in-kind labor (e.g. hourly rates used for calculations). Describe here or in text.

Reminder: Government salaries cannot be used as in-kind match

***The Review Panel suggests that design and oversight costs associated with a proposed project not exceed 15% of the total project budget. If design and oversight costs are in excess of 15%, applications must include a minimum of two competitive bids for the cost of undertaking the project.

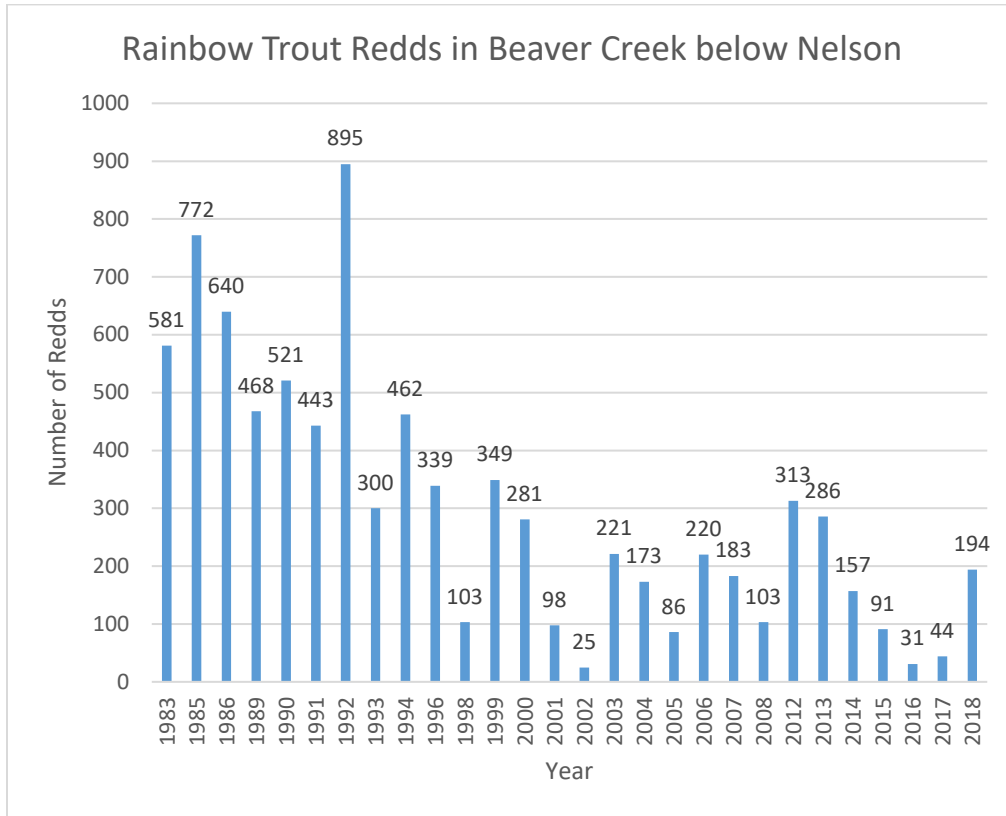
****The Review Panel recommends a maximum fencing cost of \$1.50 per foot. Additional costs may be the responsibility of the applicant and/or partners.

MATCHING CONTRIBUTIONS (do not include requested funds)

CONTRIBUTOR	IN-KIND SERVICE	IN-KIND CASH	TOTAL	Secured? (Y/N)
NorthWest Energy	\$ -	\$ 79,000.00	\$ 79,000.00	Y
USFS	\$ 25,000.00	\$ 21,229.80	\$ 46,229.80	Y
Pat Barnes Chapter Trout Unlimited	\$ 1,167.60	\$ 4,000.00	\$ 5,167.60	Y
NorthWest Energy MoTAC/WildTAC	\$ -	\$ 200,000.00	\$ 200,000.00	N
PBCTU	\$ -	\$ 15,000.00	\$ 15,000.00	N
National Forest Foundation MAPS	\$ -	\$ 20,000.00	\$ 20,000.00	N
DNRC Renewable Resource Grant Program	\$ -	\$ 125,000.00	\$ 125,000.00	N
	\$ -	\$ -	\$ -	
	\$ -	\$ -	\$ -	
	\$ -	\$ -	\$ -	
TOTALS	\$ 26,167.60	\$ 464,229.80	\$ 490,397.40	

Beaver Creek Missouri Channel Reconstruction

FFIP Beaver Creek Restoration Project-Supplemental
5/30/2019



Beaver Creek Missouri Channel Reconstruction

Beaver Creek currently lacks floodplain connectivity, habitat complexity and a functioning riparian area due to decades of historic land use: agricultural impacts/overgrazing, rip-rap stabilization and channelization.



Restoration Goals:

- Restore floodplain and hydrologic processes
- Reconstruct stream channel and floodplain to natural conditions to emulate historic stream sinuosity and morphology
- Increase channel complexity
- Restore riparian areas

Beaver Creek Missouri Channel Reconstruction



FSR 138

Reach 3 Phase II

Reach 2 Phase I

Helena
National
Forest

Beaver Creek



Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community, Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



Michelle McGree
Future Fisheries Improvement Program
Fish Management Bureau
Montana Fish, Wildlife & Parks
PO Box 200701
Helena, MT 59620-0701

April 26, 2019

Dear Ms. McGree,

I'm writing this letter of support for the *Beaver Creek Restoration* application that was recently submitted to you by the Helena-Lewis & Clark National Forest and Pat Barnes Chapter TU.

NorthWestern Energy has provided funding for the Beaver Creek restoration project through our FERC-ordered Missouri River Technical Advisory Committee. The Committee is comprised of representatives of Montana Fish, Wildlife & Parks, US Forest Service, US Fish & Wildlife Service, US Bureau of Land Management and NorthWestern Energy. Each year the Committee reviews up to 35 proposals and makes a determination whether to fund based on available funding and how the proposed projects protect, mitigate and enhance fish and wildlife populations and habitat in the Missouri River corridor.

In 2016 and 2017, NorthWestern Energy funded \$79,900 for survey, analysis and final design plans for the Beaver Creek Restoration Project. The construction phase of this project fits the requirements of both our Fisheries and Wildlife funding programs. Given our commitment to survey and design of this project in two previous funding cycles, the construction portion will likely rank high in the next funding cycle.

I strongly urge you to approve funding the *Beaver Creek Restoration* application. Please feel free to contact me if you have any questions. With regards.



Grant Grisak
Fish Biologist - Hydro License Compliance
Grant.Grisak@NorthWestern.com
406-268-2299
406-403-1967
6700 Rainbow Dam Road
Great Falls, MT 59404

**NorthWestern**
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THE **OUTSIDE** IS IN US ALL.

Michelle McGree
Future Fisheries Improvement Program
Fish Management Bureau
Montana Fish, Wildlife & Parks
PO Box 200701
Helena, MT 59620-0701

May 30, 2019

Dear Ms. McGree,

I am writing to support Beaver Creek Restoration Project Area application to fund riparian corridor restoration efforts on Beaver Creek near Helena, MT.

In the past Montana Fish, Wildlife & Parks (FWP) has worked with the USFS, Northwestern Energy, and the local Conservation District to identify significant resource issues associated with stream and riparian degradation on Beaver Creek upstream from its confluence with the Missouri River. Rehabilitation of the riparian corridor throughout the proposed project area provides another opportunity to enhance public recreational resources for the community.

This reach of Beaver Creek contains sustainable populations of resident Eastern brook trout and both resident and migratory (adfluvial Missouri River fish) rainbow and brown trout. However, the fishery remains substantially impacted by habitat degradation and a lack seasonal connectivity to the Missouri River. The proposed contemporary restoration efforts on this project are expected to positively benefit the fishery through moderated stream temperatures, reduced rate of bank erosion, improved floodplain connectivity and aquatic habitat, fish passage, and improvements to overall water quality. The proximity of the stream reach to Helena also provides additional fishing opportunity to the community.

Ultimately, the Beaver Creek Restoration Project will benefit the fishery, riparian corridor and community in perpetuity and the proposed restoration effort aligns with FWP's mission and core values. FWP looks forward to continuing our relationship with the Helena-Lewis and Clark National Forest and Pat Barnes Chapter Trout Unlimited on this and future projects.

Thank you for considering our comments.

Sincerely,

Adam Strainer
Helena Area Fish Biologist
Montana Fish, Wildlife and Park
PO Box 200701 or 930 Custer Ave W
Helena, MT 59620